

AMENDMENTS TO THE SPECIFICATION

Please cancel the current title and add the following title: "IMAGE PROCESSING DEVICE AND METHOD FOR READING IMAGE SIGNAL FROM A MATRIX TYPE SOLID STATE IMAGE-PICKUP ELEMENT".

Please replace Paragraphs [0009], [0010], [0011], and [0013] with the following paragraphs rewritten in amendment format:

[0009] An image processing device of the present invention that reads an image signal from a solid-state image-pickup element where a plurality of unit pixels including a transistor for detecting a light signal and a photo diode are arranged in a matrix includes a first shift register connected to a line for reading out an image signal that selects a line where a signal in response to carriers accumulated in an accumulation state for generating carriers in the photo diode in response to received light is read out, regarding each line of the matrix, and a second shift register connected to a line for clearing an image signal ~~that selects a line for clearing an image signal~~ where the residual carriers in the solid-state image-pickup element are discharged from the solid-state image-pickup element. Furthermore, this device includes a first output circuit that outputs a reset signal to the first shift register when a direction of scanning lines of the matrix is changed

[0010] An image processing method of the present invention that reads an image signal from a solid-state image-pickup element where a plurality of unit pixels including a transistor for detecting a light signal and a photo diode are arranged in a matrix includes the steps of forming a first shift register connected to a line for reading out an image signal that selects a line where a signal in response to carriers

accumulated in an accumulation state for generating carriers in the photo diode in response to received light is read out, regarding each lines of the matrix and forming a second shift register connected to a line for clearing an image signal ~~that selects a line for clearing an image signal~~ where the residual carriers in the solid-state image-pickup element are discharged from the solid-state image-pickup element. The method further includes the step of outputting a reset signal to the first shift register when a direction of scanning lines of the matrix is changed.

[0011] A solid-state image-pickup device of the present invention includes a solid-state image-pickup element where a plurality of unit pixels including a transistor for detecting a light signal and a photo diode are arranged in a matrix, a first shift register connected to a line for reading out an image signal that selects a line where a signal in response to carriers accumulated in an accumulation state for generating carriers in the photo diode in response to received light is read out, regarding each lines of the matrix, and a second shift register connected to a line for clearing an image signal ~~that selects a line for clearing an image signal~~ where the residual carriers in the solid-state image-pickup element are discharged from the solid-state image-pickup element. The device further includes an output circuit that outputs a reset signal to the first shift register when a direction of scanning lines of the matrix is changed.

[0013] In addition, the image processing device of the present invention may further include[[s]] a second output circuit that outputs shift data applied to a line for reading out an image signal, based on which a selection signal for selecting a line for reading out an image signal is output, to the first shift register, in the state when the number of lines between the line for reading out an image signal and the line for

clearing an image signal is equal to or less than the number of lines in the matrix and a direction of scanning lines of the matrix is changed.